



**STATE OF MONTANA
MONTANA DEPARTMENT OF TRANSPORTATION
JOB PROFILE**



Update



Formal Review

Date Submitted _____

SECTION I - Identification

Working Title: Transportation Planner
(Data Management & Analysis Series)

Department: Transportation

Job Code Number: 193535

Division & Bureau: Rail, Transit &
Planning / Data & Statistics

Job Code Title: Planner II and III – Program Manager

Section & Unit: Traffic Data Collection &
Analysis

Pay Band: Band 5, Levels 1 and 2

Work Address: 2701 Prospect Ave
PO Box 201001
Helena, MT 59620-1001

Position Number: 26049, 26068, 26054

Phone: 406-444-6121

☐ FLSA Exempt ☒ FLSA Non-Exempt

☐ Non-Union ☒ MPEA ☐ Blue Collar

Profile Completed By:

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Erin Root

Work Phone: 406-444-6122

Work Unit Mission Statement or Functional Description: The MDT's mission is to serve the public by providing a transportation system and services that emphasize quality, safety, cost effectiveness, economic vitality and sensitivity to the environment.

The principal goals of the Rail, Transit and Planning Division are to develop and implement a long-range multimodal construction program that addresses Montana's most important statewide transportation needs and to support the development and safety of Montana's multimodal transportation system. These dual goals are addressed through the complex interaction and interrelationship of the following five bureaus, Data and Statistics, Grants and Multimodal Planning, Policy, Program and Performance Analysis, and Environmental Services.

The Data and Statistics Bureau's mission is to gather, format, and analyze transportation data in an efficient, accurate and meaningful way. A centerpiece of the Bureau's function is to provide service to its clients in the form of more than 20 data and statistics products. These products embody a variety of disciplines and range from detailed traffic records to data management and monitoring systems, road inventories, and Geographic Information Systems (GIS) and mapping. The Bureau develops, maintains,

and administers complex, comprehensive data collection and analysis programs and maintains comprehensive maps and related data bases used for transportation planning, highway design and maintenance, safety, research, federal certifications, modal research allocations and distribution of federal highway funds in accordance with state financial distribution statutes. The Bureau maintains and administers several elements of the State of Montana's Transportation Information System; the Federal Highway Performance Monitoring System; and the Traffic Monitoring System. The Bureau is also responsible for calculating fuel tax allocations to local governments, calculating Secondary roads allocations, and mapping programs. The Bureau evaluates special studies and plans, provides executive management with empirical data for complex, potentially controversial decisions, and is responsible for the statistical accuracy of state certified reports to the federal government.

Within the Data and Statistics Bureau, the Traffic Data Collection and Analysis Section, through a comprehensive Traffic Monitoring Program, collects, analyzes, and summarizes traffic characteristics and statistics on Montana's public roadway systems. Traffic characteristics are developed into useable information that is essential for the administration, development, construction, maintenance, and operation of MDT's Highway Program as well as support for the federally mandated Traffic Monitoring System (TMS), Highway Performance Monitoring System (HPMS), and weight enforcement program. This Section also provides traffic data to the State's transportation database that supports the bridge, congestion, safety, and pavement management systems.

Describe the Job's Overall Purpose:

This position serves as the program manager for MDT's short-term Traffic Count Program (TCP), the statewide GIS-based Traffic History program, Portable Weigh-in-Motion (WIM) program, or other traffic management program. The incumbent is responsible for managing all program activities including data acquisition, analysis, maintenance, and administration; monitoring federal and state regulations; ensuring the program is in compliance with regulations by implementing program and policy modifications as necessary; researching and implementing best practices which are beneficial to the programs; and ensuring the program meets the needs and quality standards required for use by state, local, and private agencies in planning, engineering and travel monitoring activities within the State of Montana. This position is also responsible for overseeing ad hoc traffic data collection, analysis and reporting projects, conducting geospatial analysis using GIS and Excel, and creating specialized maps and performing a variety of other duties as assigned.

The incumbent provides varying levels of oversight or technical assistance to the Section's statewide data collection staff which consists of three Traffic Technicians, three seasonal Traffic Technicians, three Electronic Repair Technologists, one Statewide Trainer, and one Electronic Engineer. The incumbent also coordinates and provides oversight on individual ad-hoc projects.

SECTION II - Major Duties or Responsibilities

This section should be a clear concise statement of the position's major duties and the approximate percent of work time for each duty

% of Time

Planner II – Band 5, Level 1

A. Program and Project Management

50%

1. Manages MDT's short-term Traffic Count Program (TCP), the statewide GIS-based Traffic History program, Portable Weigh-in-Motion (WIM) program, or other traffic management program with oversight from the Section's higher-level Planners or Computer System Analysts.
2. Presents recommendations to the Section's higher-level staff regarding enhancements or efficiencies to existing operational procedures and program components including data collection and analysis parameters enhancements, computer system maintenance and troubleshooting specifications for customized traffic software, geospatial or Oracle database development, management or enhancements.
3. Performs ongoing reviews and quality checks of existing program outputs and business processes to ensure they are accurate and meet the needs of MDT and its customers.
 - With oversight from the appropriate higher-level staff within the Section, identifies, troubleshoots, and resolves discrepancies that arise during these periodic reviews, investigates errors, determines the cause and works with the appropriate entities to correct the problem.
4. With guidance from the appropriate upper-level staff within the Section, develops project plans and recommends priorities for statewide traffic data management and inventory.
 - Assesses Federal and Departmental priorities, technical capabilities, resource allocations, and other factors to ensure projects are completed on schedule and according to the needs and specifications outlined.
 - Adjusts plans as necessary to accommodate changing priorities, resources and field dynamics (e.g. equipment failures, project needs from upper-management, weather, etc.).
5. Conducts ongoing research of Federal Registers, technical journals, and best practices of other states for updates or changes in data collection, processing or analysis procedures and works with upper-level staff to implement necessary changes to MDT's traffic applications and practices to ensure Traffic program meets all federally mandated requirements set forth for the state's Traffic Monitoring System (TMS).
6. Assists in providing input to agency program managers and others regarding potential new uses for traffic software within the Department.
 - Assists higher-level Planners and Computer System Analysts conduct in-depth assessments and analyses of current uses; identifying and analyzing current and upcoming business processes and needs; identifying and accessing problems and inconsistencies; developing and recommending modifications and new uses to maximize operations within the section and the Department, resolving existing and potential system problems and anticipate future program and software needs.
7. Recommends software functions, operations, and other parameters necessary to collect, manipulate, analyze, integrate, and apply data according to program needs and requirements.
 - Assists appropriate higher-level Section staff in coordinating with MDT's Information Services Division on internal software and application development, testing and implementation issues.
8. Provides ongoing oversight or technical and data monitoring assistance to the Section's field staff which consists of remotely-based Traffic Technicians, summer temporary data collectors, Electronic Repair Technologists, a Statewide Trainer, and an Electronic Engineer.

- Helps resolve complex problems associated with traffic data collection and analysis which involves managing problems with project planning, implementation, specialized equipment and software systems, and other issues affecting project delivery.
 - Provides guidance and expertise on integrating and applying new system models, methods, and procedures; works in conjunction with the Statewide Trainer or the Electronic Engineer to ensure consistency and adherence to established policies and procedures; develops annual data collection inventory or biennial WIM calibration schedules and monitors data collection progress and provides the section Supervisor with regular performance and program summaries to ensure program goals are met.
9. Represents the section in meetings, on workgroups, and research committees to provide expertise, recommend solutions to data collection, management, and analysis problems, develop standards and procedures and conduct collaborative research and exchange information.

B. Data Analysis and Processing

45%

1. Assists upper-level Section staff with data management, analysis and processing duties such as uploading traffic data from WIM sites or processing the short-term count data collected and submitted by field staff, performing critical data management duties, reviewing raw traffic data for completeness and integrity, and running validations between databases to ensure data integrity and consistency.
 - Monitors quality assurance/quality control procedures for data monitoring, collection and data processing and, with oversight from the appropriate Section staff, implements program or process modifications to improve existing procedures.
2. Develops and maintains program specific business processes and manuals such as the Data Collection Procedures and Policy Manual for the field data collection or calibration procedures and requirements for WIM equipment.
3. Conducts and/or oversees the collection of field data by Traffic Data Collection and Analysis staff to ensure collection procedures are appropriate.
 - While in the field, the incumbent uses independent judgment regarding the most effective way to collect the required information. The data to be compiled includes traffic volumes, vehicle classification, GPS location, directional distribution and speed on roads open to public travel.
 - These tasks require an in-depth understanding of customized equipment and software; traffic collection and reporting requirements; and the passenger vehicle and truck travel patterns in the area.
4. Creates specialized reports, graphs and digital maps for internal data customers, other state agencies, local governments and the general public.
 - Assesses the specific needs of the requesting entity, identifying and locating the needed information, and conducting research and analysis as necessary.
5. Assists with special projects as assigned.
 - Gathers the necessary data, scheduling specialized data collection efforts if needed, analyzing data by statistical, classification and other empirical and scientific techniques to develop recommendations and assist in the preparation of reports and presentation by compiling data and analyses into written narratives, graphs, charts, maps and tables.

C. Other Duties

5%

1. Acts as a backup to the section's higher-level staff; generates specialized maps and graphs, assists with special projects, performs traffic projections and Equivalent Single Axle Loadings (ESAL) calculations for Engineering Requests as needed.
2. Attends meetings, training and system development sessions as directed by the section supervisor to gather information regarding actions that may impact system design and reporting requirements, and to represent and present the section's interest in these areas.
3. Assists with short-term hose counts, quarterly manual counts and special counts and occasionally assists the section's field staff with duties such as flagging or installation of permanent traffic equipment.
4. Performs a variety of other professional planning and administrative duties as assigned by the section supervisor and/or bureau chief; coordinates special projects and performs, summarizes and presents basic to advanced research and analysis projects; and represents MDT at meetings and conferences and attends continuing education and training as required.

Planner II – Band 5, Level 2

The responsibilities are the same as above in addition to:

A. Program and Project Management

50%

1. Independently manages MDT's short-term Traffic Count Program (TCP), the statewide GIS-based Traffic History program, Portable Weigh-in-Motion (WIM) program, or other traffic management program.
2. Independently develops data collection and analysis parameters, computer system maintenance and troubleshooting specifications for customized traffic software, establishes guidelines for geospatial database development and management and provides input to the Section's Computer Systems Analyst on Oracle database management and program enhancements.
 - Coordinates with the Section's Computer Systems Analysts and Planner to develop and recommend operational procedures, review and evaluate atypical project components and adjust guidelines as necessary to ensure data integrity and operational efficiency.
3. Performs ongoing reviews and quality checks of existing program outputs and business processes to ensure they are accurate, include appropriate internal controls and meet the needs of MDT and its customers and independently identifies, troubleshoots, and, resolves discrepancies that arise during these periodic reviews, investigates errors, determines the cause and works with the appropriate entities to correct the problem.
4. Independently develops project plans and presents recommendations to the Section Supervisor on priorities for statewide traffic data management and inventory.
 - Assesses Federal and Departmental priorities, technical capabilities, resource allocations, and other factors to ensure projects are completed on schedule and according to the needs and specifications outlined.

- Adjusts plans as necessary to accommodate changing priorities, resources and field dynamics (e.g. equipment failures, project needs from upper-management, weather, etc.).
5. Provides input to agency program managers and others regarding potential new uses for traffic software within the Department.
 - Conducts in-depth assessments and analyses of current uses; identifying and analyzing current and upcoming business processes and needs; identifying and accessing problems and inconsistencies; developing and recommending modifications and new uses to maximize operations within the section and the Department, resolving existing and potential system problems and anticipate future program and software needs.
 6. Identifies new software functions, operations or other parameters necessary to collect, manipulate, analyze, integrate, and apply data according to program needs and requirements. Works with MDT's Information Services Division (ISD) on internal software and application development, testing and implementation issues.
 7. Represents the section in meetings, on workgroups, and research committees to provide expertise, recommend solutions to data collection, management, and analysis problems, develop standards and procedures and conduct collaborative research and exchange information.

B. Data Analysis and Processing

45%

1. Independently conducts data management, analysis and processing duties such as uploading traffic data from WIM sites or processing the short-term count data collected and submitted by field staff, performing critical data management duties, reviewing raw traffic data for completeness and integrity, and running validations between databases to ensure data integrity and consistency.
2. Monitors quality assurance/quality control procedures for data monitoring, collection and data processing and is responsible for implementing program or process modifications to improve existing procedures.
3. Evaluates the needs of MDT, local governments, and the general public to maximize the section's use and benefit of geospatial data reporting; assesses customers' mapping and technical capabilities and the available resources and works with MDT's Information Services Division to implement reporting enhancements.
4. Identifies the need for new program applications or enhancements to existing systems or processes; coordinates with other MDT staff, local governments, landowners, and other customers to develop, recommend and implement changes in database management or data collection procedures.

C. Other Duties

5%

1. Occasionally assists the section's field staff with the repair of permanent traffic equipment.

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1. *The following duties and/or specific tasks listed under section II above are considered “essential functions” because they require specialized expertise and skill and are the primary reasons the job exists (they must be performed by this position with or without accommodations):*

- A. Program and Project Management
- B. Data Analysis and Processing

The following mental and physical demands are associated with these essential functions:

PHYSICAL

- Remaining seated for extended periods of time, with occasional walking, standing and bending.
- Operating a personal computer.
- Lifting (less than 30 lbs.)
- Operating a motor vehicle.
- Requires occasional extended periods of travel, working in all types of weather conditions, and working on and alongside roadways which experience high volume and high-speed traffic.
- Requires operating computers and digital measuring equipment; data collection and ensuring safety of co-workers and traveling public while working in the field.

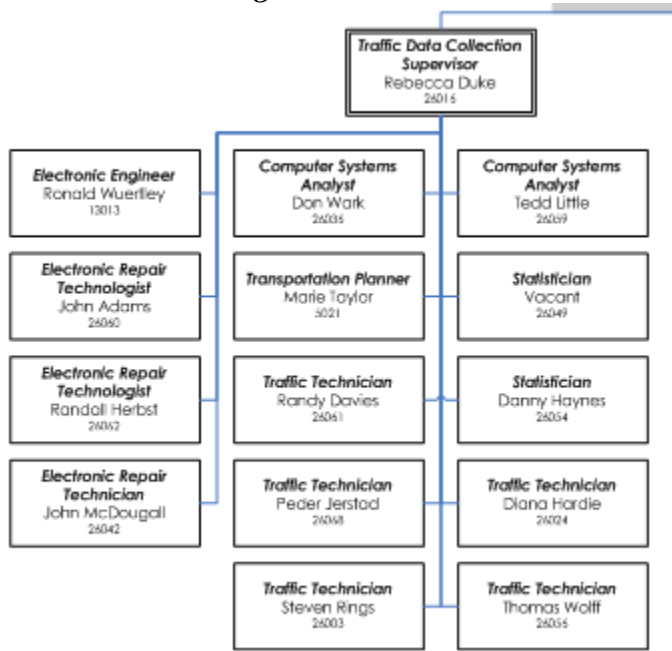
MENTAL

- Requires work on multiple tasks simultaneously and effectively; remaining aware of workload and make appropriate adjustments to meet deadlines and complete tasks
- Demands for accuracy in all aspects of work performed.
- Compiling and analyzing information.
- Coordinating, negotiating, and instructing.
- Dealing with internal and external customers on a regular basis.

2. **Does this position supervise others?** ☐ Yes ☒ No

- Position provides oversight or technical assistance to Traffic’s field staff which consists of three FTE Traffic Technicians, three seasonal Traffic Technicians, three Electronic Repair Technologists, a Statewide Trainer and an Electronic Engineer.
- **Number directly supervised: 0**
- **Position Number(s) of those supervised: N/A**

3. *Attach an Organizational Chart.*



SECTION III - Minimum Qualifications - List minimum requirements for the first day of work.

Critical knowledge and skills required for this position:

KNOWLEDGE:

Customer and Personal Service — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

English Language — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.

Administration and Management — Knowledge of resource allocation, leadership technique, production methods, and coordination of people and resources.

Mathematics — Extensive knowledge of mathematical computation and statistical evaluation and a general knowledge of algebra and geometry and their applications.

Transportation Planning — General knowledge of the concepts, principles, objectives, and methods of planning, traffic model applications, data gathering techniques, and analytical research techniques and practices; computer operations and applications including word processing, file system management (e-files and hardcopy), relational databases and spreadsheets.

Data Management – Knowledge of GIS, Oracle, and Excel database development and data management.

Clerical — Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, designing forms, and other office procedures and terminology.

SKILLS:

Problem Solving - Identifying problems and reviewing related information to develop and evaluate options and implement solutions.

Planning – Advanced skills in project planning and management; specialized GIS/GPS and data management applications, and organizing and coordinating field inventory activities.

Writing — Communicating effectively in writing as appropriate for the needs of the audience.

Speaking — Talking to others to convey information effectively.

Judgment and Decision Making — Considering the relative costs and benefits of potential actions to choose the most appropriate one.

Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Reading Comprehension — Understanding written sentences and paragraphs in work related documents.

Equipment Operation — Operating computers and digital measuring equipment; data collection and graphic presentations.

Behaviors required to perform these duties:

See MDT Core Competencies

Education:

Check the one box indicating minimum education requirements for this position for a new employee the first day of work:

- | | |
|---|--|
| <input type="checkbox"/> No education required | <input type="checkbox"/> Related AAS/2-years college/vocational training |
| <input type="checkbox"/> High school diploma or equivalent | <input checked="" type="checkbox"/> Related Bachelor's Degree |
| <input type="checkbox"/> 1-year related college/voc. training | <input type="checkbox"/> Related Master's degree |

Please specify the acceptable fields of study:

Acceptable: Planning or a related field

Related: Geology, Geography, Computer Science, Computer Information Systems, Business, Economics, Education, Public Administration, Mathematics, Finance, Accounting Statistics, Social or Physical Science, Engineering, Land Use Planning, Resource Management AND 1 year of progressively responsible experience in planning, programming analysis, data collection and analysis, research, or another appropriate field (statistics, engineering).

Other equivalent combinations of education and experience may be considered.

Other education, training, certification, or licensing required (specify):

Experience:

Check the one box indicating minimum work-related experience requirements for this position for a new employee the first day of work:

- | | |
|--|--|
| <input checked="" type="checkbox"/> No prior experience required | <input type="checkbox"/> 3 years |
| <input type="checkbox"/> 1 year | <input type="checkbox"/> 4 years |
| <input type="checkbox"/> 2 years | <input type="checkbox"/> 5 or more years |

Other specific experience (optional):

Six months experience in program or project oversight preferred.

Alternative Qualifications:

This agency will accept alternative methods of obtaining necessary qualifications.

- ☒ Yes ☐ No

Alternative qualifications include: An AS in relevant fields and three years of progressively responsible experience in planning, programming analysis, data collection and analysis, research, or another appropriate field (statistics, engineering) OR an equivalent combination of education and experience.

SECTION IV – Other Important Job Information

- | | |
|--|--|
| <input type="checkbox"/> Fingerprint check | <input checked="" type="checkbox"/> Valid driver's license |
| <input type="checkbox"/> Background check | <input type="checkbox"/> Other; Describe |

Other information including working conditions such as shifts, lifting requirements, travel or hours.

Driver's Records Check: Compliance with Mont. Admin. R. 2.6.201, "State Vehicle Use," and MDT Policy #3-0134, "Addendum to Risk Management and Tort Defense Division State Vehicle Use Policy" are a condition of employment. Successful applicants will be required to sign a release for which authorizes the Department to obtain the applicant's permanent driving records.

SECTION V – Signatures

Signature indicates this statement is accurate and complete.

Employee:

Name: _____ Title: _____

Signature: _____ Date: _____

Immediate Supervisor:

Name: _____ Title: _____

Signature: _____ Date: _____

Bureau Chief:

Name: _____ Title: _____

Signature: _____ Date: _____

Division/District Administrator:

Name: _____ Title: _____

Signature: _____ Date: _____

Department Designee:

Brent Rabe Administrator, Human Resources Division

Signature: _____ Date: _____